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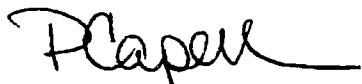
November 30, 2001

Washington Utilities & Transportation Commission
P.O. Box 47520
Olympia, WA 98504-7250
Fax. 360 586 1150

Attn: Lisa Lloyd

Enclosed is PacifiCorp's revised Electric Service Reliability Monitoring and Reporting Plan for Washington for filing. I am sending you the hard copy as well.

Thank you,



Paul Capell
Asset Performance Manager
PacifiCorp
503 813 5334

PacifiCorp Electric Service Reliability Monitoring and Reporting Plan for Washington

Reliability Statistics

PacifiCorp will monitor and report to the Washington Utilities and Transportation Commission the following electric reliability statistics:

1 System Availability: SAIDI

Definition

System Average Interruption Duration Index (SAIDI)

Calculation of SAIDI

SAIDI will be calculated as follows:

$$\text{SAIDI} = \frac{\text{Total Number of Customer Minutes of Interruptions}}{\text{Total Number of Customers}}$$

Assumptions

- All outages affecting one or more customers, for 5 minutes or more, will be recorded.
- For unplanned outages the outage is deemed to have started from the time at which we are first made aware of the outage, either by phone calls or outage alarms.
- All planned interruptions will be included.
- Large industrials, Rural Electric Association's (REA's) and co-operatives will be counted as one customer.

Exclusions:

- The effect on system performance caused by Major Events.
- Interruptions lasting less than 5 minutes.
- Individual faults where the customer agrees to remain without supply for an extended period.
- Individual outages where problems or safety related issues with the customer's equipment prevent us from restoring supply.
- Interruptions caused by the failure of customer owned equipment.
- Customer requested interruptions.

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2 System Security: SAIFI

Definition

System Average Interruption Frequency Index (SAIFI)

Calculation of SAIFI

SAIFI will be calculated as follows:

$$\text{SAIFI} = \frac{\text{Total Number of Customer Interruptions}}{\text{Total Number of Customers}}$$

Assumptions

- All outages affecting one or more customers, for 5 minutes or more, will be recorded.
- For unplanned outages the outage is deemed to have started from the time at which we are first made aware of the outage, either by phone calls or outage alarms.
- All planned interruptions will be included.
- Large industrials, REAs and co-operatives will be counted as one customer.

Exclusions

- The effect on system performance caused by Major Events.
- Interruptions lasting less than 5 minutes.
- Individual faults where the customer agrees to remain without supply for an extended period.
- Individual outages where problems or safety related issues with the customer's equipment prevent us from restoring supply.
- Interruptions caused by the failure of customer owned equipment.
- Customer requested interruptions.

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3 Momentary Interruptions: MAIFI

Definition

Momentary Average Interruption Frequency Index (MAIFI)

Calculation of MAIFI

MAIFI will be calculated as follows:

$$\text{MAIFI} = \frac{\text{Total Number of Customer Momentary Interruptions}}{\text{Total Number of Customers}}$$

Assumptions

- A momentary interruption is any interruption of less than 5 minutes duration.
- Momentary interruptions affecting one or more customers will be recorded.

Exclusions

- Momentary interruptions during Major Events

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4 Worst Performing Circuits

Annually through 2004, we shall select the five worst performing circuits in Washington on the basis of the Circuit Performance Indicator (CPI). Corrective measures will be taken within 2 years of selection to reduce the CPI of these five worst performing circuits by 20%. During this time period, any circuit selected as a worst performing circuits in Washington shall not be shall not be reselected in a subsequent year.

Calculation of CPI

CPI will be calculated as follows:

$$\text{CPI} = [(\text{SAIDI} * \text{W1} * \text{E1}) + (\text{SAIFI} * \text{W2} * \text{E2}) + (\text{MAIFI} * \text{W3} * \text{E3}) + (\text{LO} * \text{W4} * \text{E4})] * \text{Index}$$

- SAIFI (System Average Interruption Frequency Index)
- MAIFI (Momentary Average Interruption Frequency Index)
- SAIDI (System Average Interruption Duration Index)
- LO (Circuit Lock-Outs - Number of Substation Circuit Breaker Lock-Outs)
- W (Weighting factors)
- E (Equalization Factors)
- Index (Normalization factor for the company average CPI will equal 100)

Weighting Factors

- Used to set the degree of importance for each factor.
- The CPI weighting factors are:

–	W1 (SAIDI)	= 0.30
–	W2 (SAIFI)	= 0.30
–	W3 (MAIFI)	= 0.20
–	W4 (LO)	= 0.20

Equalization Factors

- Used to put each weighted factor within the range 1 to 100. Current Equalization factors are:

–	E1(SAIDI)	0.02900261
–	E2(SAIFI)	2.43902439
–	E3(MAIFI)	0.69930069 * (Total Number of Customers on the Circuit)
–	E4(LO)	5.26315789

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Indexing Factor

- Used to set the company CPI to a value of 100. The current indexing factor is:
 - Index 10.64537424

CPI Base Period

- CPI uses a three (3) year base period to establish: Equalization and Indexing factors.
- Base period is 01/01/1990 through 12/31/1992
- Standard CPI Report designed to always use a three year period.

Equalization factors will continue to be used to normalize the range of each of the indices.

Assumptions

- Once selected as a worst performing circuit for improvement, corrective measures will be taken within 2 years to reduce the CPI by 20%.
- Selected circuits will be monitored to ensure all reduce their CPI by at least 20%.
- If any of the selected circuits fail to be reduced below the 20% target, an explanation will be included in the annual report detailing the history of the circuit, actions taken, investments made and the reasons for the CPI not improving. If the commission rejects the explanation of this report then a penalty will apply equal to \$1.00 for every customer served by PacifiCorp in Washington.
- Five new circuits will be selected each year.
- All outages affecting one or more customers will be recorded.
- For unplanned outages the outage is deemed to have started from the time at which we are first made aware of the outage, either by phone calls or outage alarms.
- The Schedule of work and monitoring will be as follows:

Exclusions

- The effect on system performance caused by Major Events.
- Individual faults where the customer agrees to remain without supply.
- Individual outages where problems or safely related issues with the customer's equipment prevent us from restoring supply.
- Customer requested interruptions.

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Performance Baselines

Introduction

The Joint Stipulation among ScottishPower, PacifiCorp, Commission Staff and Public Counsel identified the need to agree upon performance baselines (Baselines) against which the percentage improvements in SAIDI, SAIFI and MAIFI to which ScottishPower committed in connection with its Performance Standards could be measured. In December, 1999, in a report titled "Establishing Performance Baselines, Washington,"ⁱ ScottishPower demonstrated that the problems with PacifiCorp's systems for measuring and reporting outages were such that defining an accurate position for real performance at that time was not possible. The data available are incomplete and inaccurate, and thus any Baseline currently set on the historical data would require further adjustments as reporting systems are developed.

PacifiCorp, Commission Staff and Public Counsel have agreed to a process and timeline for calculating and filing Baselines in the future. Over a three-year period, culminating in December 2002, PacifiCorp will, under Commission Staff and Public Counsel review, adjust historical data to establish Baselines. Even though the Baselines will not be finalized until 2002, they will still be used as the benchmark for determining whether ScottishPower has met its commitments to improve performance within five years of closure of the merger.

Calculating Baselines

PacifiCorp has reported historical statistics for SAIFI, SAIDI and MAIFI in Washington for the years 1994 through 1998. The key statistics are those that represent the historical underlying performance of the system, i.e. excluding storms. This annual data will be averaged to develop a single statistic for each index. Adjustments will be made to these three statistics to account for the undercounting of outages, customers, customers affected, and minutes of outage. The resulting three adjusted historical indices will be the Baselines by which promised improvements will be measured.

Adjustments to the historical data will be made based on a model developed by PacifiCorp and reviewed by Commission Staff and Public Counsel. Historical statistics will then be adjusted to form the measurement Baselines.

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Improving PacifiCorp's Reporting Systems

PacifiCorp's historical records overstate the actual performance experienced by customers, i.e. performance is worse than the historical data show due to inaccurate measurement and reporting systems. PacifiCorp will make improvements to its outage reporting system through three general actions:

- 1) Revision of manual reporting procedures, and eventual implementation of an electronic reporting framework – Computer Aided Distribution Operations (CADOPS); and
- 2) Linking customer information to system facilities through the Customer Connectivity Project.

When these improvements have been completed, PacifiCorp will provide complete and accurate reporting of outage performance. It is anticipated that the accuracy of the proposed monitoring and reporting system will improve to within +/- 5% of all customer interruptions by May 2002. Future network performance reports published by PacifiCorp will be well defined, accurate and auditable.

The improvements planned to the outage reporting system, promised by ScottishPower, will increase the number of reported outages, implying deterioration in performance. The improvements implemented will be identified and the impact each has on the results will be measured. The current problems with volume of reports and accuracy of reports will be identified and estimated, allowing a more accurate assessment of the level of past underreporting.

PacifiCorp will continue to make investments and improvements to its distribution network during this process. These network initiatives will tend to reduce outages. However, the historical data, compared to future improved outage data, may not adequately reflect these improvements. PacifiCorp will monitor specific initiatives to demonstrate that customer service has, indeed, improved.

PacifiCorp Electric Service Reliability Monitoring and Reporting Plan for Washington

Annual Electric Service Reliability Report

PacifiCorp will provide an annual Service Reliability report to the Washington Utilities and Transportation Commission for the fiscal year ending March 31 beginning in 2002. That report will be submitted on or before May 31 of that same year. The annual Service Reliability Report will include:

- SAIDI statistics (graphs)
- SAIFI statistics (graphs)
- • MAIFI statistics (graphs)
- • Worst Performing Circuits statistics and improvement measures taken
- • Number of power reliability complaints to PacifiCorp by Washington customers
- • Number of power quality complaints made to PacifiCorp by Washington customers
- • Number and description of all Major Events in Washington
- • Impacts on Service Reliability reporting associated with the implementation of improved outage reporting systems.
- • System maps

That same report will be made available will also be made available to any customer requesting it through the customer call center.

Appendix 1

WITH CADOPS AND PROSPER

Before CADOPS and PROSPER, Troublemens or Line Foremen submitted outage reports to Operations Clerks who then updated the old Outage Reporting System (ORS). Historically, managerial and staff incentives were low to report all outages and hence many records were incomplete or inaccurate. Dispatch Management Systems (DMS), PROSPER and CADOPS now provide accurate call recording, detailed reporting and customer connectivity. With the improved systems, automatic reports are produced and therefore all data is retained for analysis.

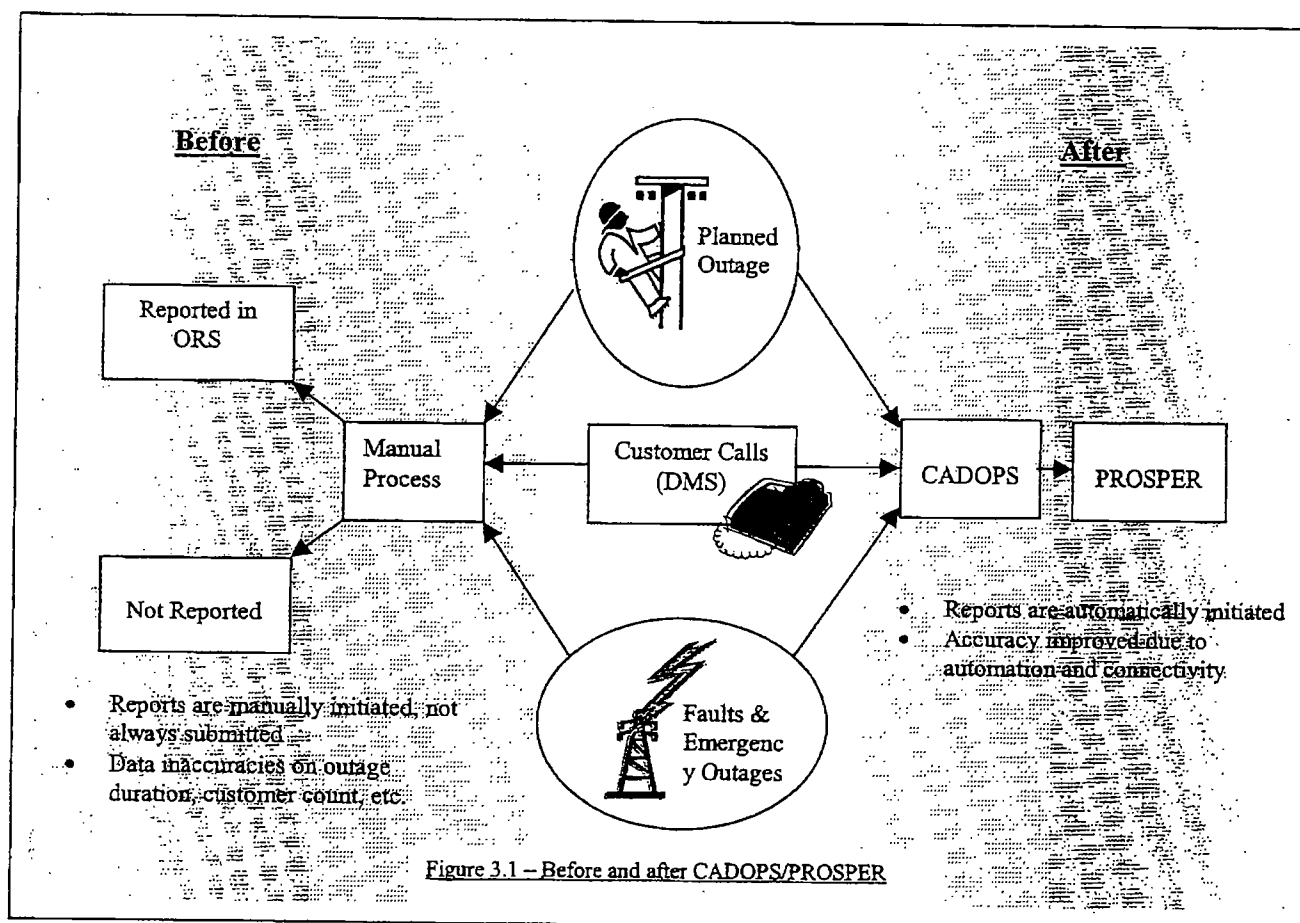
3.1 CADOPS

CADOPS (Computer Aided Distribution Operations) is a distribution management system software application that integrates real-time operational data with a dynamic model of the electrical system. It is a tool for automating outage analysis, monitoring distribution feeders, determining fault locations, crew management, dispatching and real-time power analysis.

The CADOPS system improves on older methods of outage management by directly linking with the Business Centers that receive outage calls from PacifiCorp customers. This customer call information is fed via a 'connectivity' tool to CADOPS, which then logically deduces all the circuits and connected customers effected by the outage. The common network interrupting device is therefore identified and CADOPS presents this graphically to the dispatcher.

3.2 PROSPER

Figure 3.1 demonstrates the procedures of outage reporting prior to and after the implementation of the automated outage management systems.

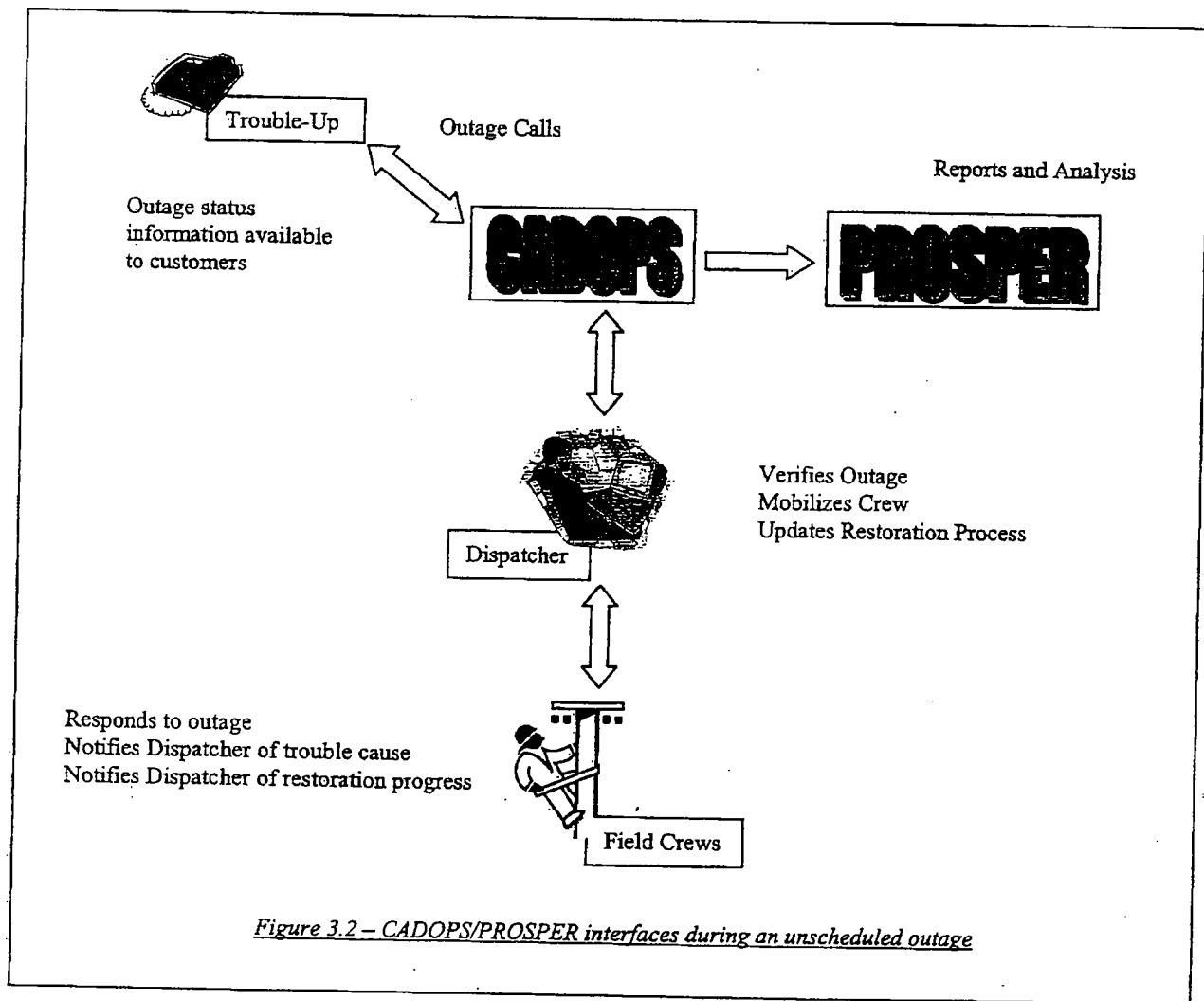


In the past, outage data was written down in the field and transferred to an electronic database through clerical entry. With PROSPER_US, an outage reporting application developed in the UK, outage reports are automatically created and archived, eliminating the need for field recording of incidents.

This automation of outage reporting significantly increases the accuracy and consistency in the recording of reliability data.

3.3 CADOPS/PROSPER Interfaces

Figure 3.2 illustrates the process during an unscheduled outage. When a customer experiences an outage they will report the outage to the Business Center. The Company Representative will record the information in Trouble-Up. Trouble-Up communicates the outage to CADOPS. The Dispatcher continually monitors CADOPS and will learn about the outage. Using CADOPS, the dispatcher will complete the outage in CADOPS and in PROSPER. CADOPS gives the time at each stage of restoration, clears the icons, and returns the map to normal. Through PROSPER, the dispatcher inputs cause and equipment information, then completes the outage for archiving.



3.4 Benefits of CADOPS/PROSPER

The communication between crews, dispatchers and the software itself provide the company with increased visibility of the network issues and accuracy and consistency improvements in outage reporting. These benefits have had a large impact on reporting methods in PacifiCorp, which has resulted in significant changes to the trends of the performance standards indices.

The customers will reap the benefits from the improvements. Business Center staff can provide the outage effected customers with accurate information about the outage and the progress of its restoration, whilst Power Delivery can optimize the utilization of the electrical assets.